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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,855	12/29/2003	Sang-II Han	8107-1 (S03US005)	6428

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EXAMINER

KIM, PETER B

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 06/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

10/748,855

Applicant(s)

HAN, SANG-IL

Examiner

Peter B. Kim

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>122003, 22004</u> . | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawakubo (6,219,130).

Kawakubo discloses a method for overlay measurement using a multiplex filter, comprising: selecting a first filter from a plurality of filters and positioning the first filter underneath a lens of an overlay measurement apparatus; determining whether overlay marks formed on a wafer are perceptible through the lens and the first filter; measuring the overlay marks if the overlay marks are perceptible; and replacing the first filter with a second filter from the plurality of filters if the overlay marks are not perceptible through the first filter (col. 5, line 50 – col. 6, line 10, col. 9, lines 20-32).

Kawakubo discloses a method for overlay measurement, comprising: selecting a first filter from a plurality of filters and positioning the first filter on an overlay measurement apparatus; determining whether overlay marks formed on a semiconductor surface are able to be measured using the first filter; measuring the overlay marks if the overlay marks are able to be measured; and replacing the first filter with a second filter from the plurality of filters if the overlay marks are not able to be measured using the first filter (col. 5, line 50 – col. 6, line 10, col. 9, lines 20-32).

Kawakubo discloses a method for overlay measurement, comprising: using a plurality of filters in conjunction with an overlay measurement apparatus to perceive overlay marks on a semiconductor surface; and measuring perceptible overlay marks (col. 5, line 50 – col. 6, line 10, col. 9, lines 20-32).

Kawakubo discloses analyzing the overlay marks and calculating the results of the analysis (col. 6, line 48- col. 7, line 5). Kawakubo also discloses filter including red, yellow and green filters (col. 7, lines 23-42).

Claims 1-3, 13, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Mishima (6,151,121).

Mishima discloses a method for overlay measurement using a multiplex filter, comprising: selecting a first filter from a plurality of filters and positioning the first filter underneath a lens of an overlay measurement apparatus; determining whether overlay marks formed on a wafer are perceptible through the lens and the first filter; measuring the overlay marks if the overlay marks are perceptible; and replacing the first filter with a second filter from the plurality of filters if the overlay marks are not perceptible through the first filter (col 7. lines 43-62 and col. 8, lines 1-16).

Mishima discloses a method for overlay measurement, comprising: selecting a first filter from a plurality of filters and positioning the first filter on an overlay measurement apparatus; determining whether overlay marks formed on a semiconductor surface are able to be measured using the first filter; measuring the overlay marks if the overlay marks are able to be measured; and replacing the first filter with a second filter from the plurality of filters if the overlay marks

Art Unit: 2851

are not able to be measured using the first filter (col 7. lines 43-62 and col. 8, lines 1-16).

Mishima discloses a method for overlay measurement, comprising: using a plurality of filters in conjunction with an overlay measurement apparatus to perceive overlay marks on a semiconductor surface; and measuring perceptible overlay marks (col 7. lines 43-62 and col. 8, lines 1-16).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter B. Kim whose telephone number is (571) 272-2120. The examiner can normally be reached on 8:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Peter B. Kim  
Primary Examiner  
Art Unit 2851

June 15, 2005